(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 28 April 2005 (28.04.2005)

PCT

(10) International Publication Number WO 2005/038031 A1

(51) International Patent Classification7:

C12N 15/70

(21) International Application Number:

PCT/KR2004/002625

- (22) International Filing Date: 14 October 2004 (14.10.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10-2003-0072216 16 October 2003 (16.10.2003) KR

- (71) Applicant (for all designated States except US): HANMI PHARM. CO., LTD. [KR/KR]; #893-5, Hajeo-ri, Paltanmyeon, Hwaseong-gun, Kyungki-do 445-910 (KR).
- (72) Inventors; and
- Youb [KR/KR]; Byucksan 3-danji 305-404, Jukjeon-dong, Yongin-si, Kyungki-do 449-755 (KR).

 KIM, Jin Sun [KR/KR]; Jugong Apt. 514-601, #702, Haan-dong, Kwangmyung-si, Kyungki-do 423-060 (KR).

 KWON, Se Chang [KR/KR]; Hyundai 8-cha 802-2205, Kwangjang-dong, Kwangjin-gu, Seoul 143-210 (KR).

 LEE, Gwan Sun [KR/KR]; Woochang Apt. 3-404, Okeum-dong, Songpa-gu, Seoul 138-130 (KR).

- (74) Agents: JANG, Seongku et al.; 19th Fl., KEC Building, #275-7, Yangjae-dong, SeocYangjae-dong, Seocho-ku, Seoul 137-130 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EXPRESSION VECTOR FOR SECRETING ANTIBODY FRAGMENT USING E. COLI SIGNAL SEQUENCE AND METHOD FOR MASS-PRODUCING ANTIBODY FRAGMENT

Kd 1 2 3 4 5

113.000
92.000
52.000
35.400

(57) Abstract: A recombinant expression vector capable of expressing and secreting an antibody fragment fused with <i>E. coli</i> thermostable enterotoxin signal sequence derivative or <i>E. coli</i> outer membrane protein A (Omp A) signal sequence in the form of a soluble heterozygote protein is used to mass-produce the antibody fragment by culturing a microorganism transformed with the expression vector in a medium and collecting the antibody fragment secreted from the transformed microorganism into the medium.

21.000 ~~